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Docket No. 2001-094-NSC

ABSTRACT OF THE DISCLOSURE

VOLUME TRANSLATION APPARATUS AND METHOD

A volume translation apparatus and method are The volume translation apparatus resides between host machines and the physical storage devices accessed by the host machines. This volume translation apparatus may perform volume translation for the control path and optionally the data path of input/output (I/O) requests sent by the host machines to the physical storage devices. Control path translation ensures that the correct physical volumes are mounted for accessing by the I/O request. Because the physical volume may be different from that requested by the host machine application, the translation device includes a mapping that represents which physical volumes represent copies of the virtual volume used by the host machine application. When an I/O request is received and is directed to a particular original virtual volume, the volume mapping apparatus translates the original virtual volume identification into one or more physical volume identifications associated with a secondary virtual volume which may or may not be the same as the original virtual volume.